

WHAT IS CLAIMED IS:

1. A water-soluble lubricant for warm or hot metal forming, comprising a high polymer compound whose molecule have imide group and whose weight-average molecular weight is 1,000 to 1,000,000.

2. The water-soluble lubricant for warm or hot metal forming according to Claim 1, wherein the content of the high polymer compound is 1 to 70 mass percent per 100 mass percent of the water-soluble lubricant for warm or hot metal forming.

3. The water-soluble lubricant for warm or hot metal forming according to Claim 1, wherein said high polymer compound is (A) a high polymer compound obtained by imidating part of a (co)polymer of at least one type of compound selected from among carboxylic acids having carbon-carbon double bonds, and derivatives thereof, or (B) a high polymer compound obtained by imidating part of a copolymer of at least one type of compound selected from among carboxylic acids having carbon-carbon double bonds, or derivatives thereof, and at least one type of compound selected from among sulfonic acids having carbon-carbon double bonds, or derivatives thereof, and from other

monomers polymerizable with the monomers constituting said high polymer compound.

4. The water-soluble lubricant for warm or hot metal forming according to Claim 3, wherein said at least one type of component selected from among carboxylic acids having carbon-carbon double bonds, or derivatives thereof, is maleic acid or a derivative thereof.

5. The water-soluble lubricant for warm or hot metal forming according to Claim 1, wherein the imidation ratio of said high polymer compound is 1 to 80 molar percent.